



OVERVIEW

PRONTOPP® TMC is a calcium sulphate flowing screed with fast ready-to-lay properties.

PRONTOPP® TMC is supplied as a ready-mixed factory dried mortar to which only clean water needs adding.

PRONTOPP® TMC already includes all of the necessary aids required to achieve a flowable screed boasting reliable, rapid hardening properties.

SUPPLY & COVERAGE

- Supplied in 25kg paper sacks with PE inserts.
- Coverage: Approx. 18 kg/m² per 10 mm screed thickness, 1.85t will afford 1m³ of fresh screed.

TECHNICAL DATA

- Shrinkage and swelling: ≤ 0.2 mm/m.
- Thermal conductivity: λz = 1.2 W/mK.
- Thermal expansion: 0.01 mm/mK.
- Accessibility: after 6 hours.
- Partially load ability: after 24 hours.
- Strength in flexure (28 days): approx. 7 N/mm².
- Compressive strength (28 days): approx. 40 N/mm².
- Ready to lay: In case of unheated screed and thermal screed: ≤ 2.0 CM-%.
- Thermal load ability: < 55°C.
- Apparent density: 1.1 – 1.3 kg/m².
- Wet mortar reaction: alkaline.
- Processing temperature: > + 5 °C.

PRODUCT ADVANTAGES

| Parameter | PRONTOPP® TMC | Sand/Cement Screed |
|--|--|--|
| Binding Agent | Modified calcium sulphate | Cement |
| Application | Synthetic anhydrite | Fired Portland cement clinker |
| Output (3-person crew) | Flowable, self-levelling | Conventional |
| Deformation | Approx. 1000m ² per day Fast, large scale, planar | Approx. 200m ² per day Slow, time consuming, coarse |
| Bay-sizes (dependent on room geometry) | Up to 800m ² - few joints | Up to 40m ² - various joints |
| Optics of toppings | No interfering joints in natural stone | Strong visual interference |
| Foot traffic | Same day, after 6 - 9 hours | After 3 - 4 days |
| Strength | High flexural bending strength up to 9 N/mm ² | High strength only when cement content is increased |
| Minimum screed thickness | From 30mm following IBF certificate | 65mm following BS 8204 |
| Reduction Weight (statics) | Approx. 50% lighter | 100% |
| Porosity | Low air-entraining porosity | High air-entraining porosity High material porosity |
| Use for heating/cooling systems | Optimum cleading of pipes Optimum heat conductivity | Weak zones at pipes Loss of heat conductivity |
| Ready-to-lay | 14 days - total chemical crystallisation | Usually 30-50 days hydration and physical drying |
| Site humidity | No additional site humidity due to physical drying | High input of humidity due to physical drying |
| Sustainability | Chemical industry by-product with almost zero CO ₂ footprint. Recyclable. | Vast CO ₂ output (approx. 300kg/m ³) due to energy consuming firing of clinker. |

Updated: 16/05/2019

INSTALLATION

PRONTOPP® TMC should be mixed with clean water at a ratio of 0.20 (1ltr. of water to 5kg of product).

It may be necessary to vary the water ratio in order to maintain this. The flow mass must be regularly checked by the floor screeder, as the water/binding ratio can significantly influence the fresh properties and the speed at which the product is laid.

Ensure that no air-entraining impurities (from cleaning water, air-entraining agents from recycled water, etc.) come into contact with the screed. These will negatively influence the mortar consistency and the hardening properties.

Ensure sufficient mixing time, both in the case of mix-in-plant and site mixing. This will guarantee the properties of the plasticizer.

In the case of mix-in-plant, the mixing drum of the transit mixer must rotate permanently during transportation in order to maintain the flow effect. Failing to do this will cause the fresh mortar to become rigid and harden too quickly.

If the plasticizing effect of the fresh mortar is maintained, the system can be worked for up to 2 hours. After a maximum of 3 hours, fresh mortar must be processed in full.

Apply the PRONTOPP® TMC in precisely the same way as you would a standard calcium sulphate floor screed. Always buff in a diagonal direction. In doing so, the first buffing must take place at the lowest point, the second close to the surface.

On account of the expected high strengths, the screed thickness can be kept reasonably thin. Please consult with our technical department for further details.

Screeds made using a calcium sulphate binding agent must not be exposed to long periods of moisture. If necessary, a damp-proof membrane in accordance with DIN 18195 must be specified and used to protect against the penetration of dampness.

FOLLOWING TREATMENT

PRONTOPP® TMC forms a sinter skin on the screed surface. This must be sanded off prior to further processing. The time to sand is somewhere between the 3rd and 8th day after screed installation. Pull-up strengths show high values of \varnothing 1.5 N/mm².

Taking in account the low shrinkage behaviour, curing is not advised.

In rare cases, efflorescence from the carbonate or the sulphate can occur, but this is not harmful. This can be removed by simply vacuuming, sweeping or sanding.

PRODUCT PROPERTIES

- Homogenous, flowable floor screed.
- Short build-in times, considerable pouring output.
- Low swelling and shrinkage behaviour enabling large areas to be laid with a reduced number of expansion and contraction joints. No interfering joints in natural stone toppings!
- Fast setting and hardening properties, bringing about high early and final strengths (CA-C40-F7).
- Accessible after 6 hours (at 20°C).
- Partially loadable after 24 hours.
- Floor coverings ready to lay after 14 days* (at \leq 2.0 CM-% in case of thermal screed in case of unheated screed).
- Minimum screed thickness of 35mm for floating screed and domestic use.
- Biologically friendly building product.

* Specification refers to a 40 mm screed thickness in an unheated system and 60 mm thickness for a heated system.

UNDERFLOOR HEATING PROTOCOL

Heating Up Procedure:

| | |
|----------------------------|--------|
| from 4th day after laying | + 20°C |
| from 5th day after laying | + 30°C |
| from 6th day after laying | + 40°C |
| from 7th day after laying | + 50°C |
| from 8th day after laying | + 50°C |
| from 9th day after laying | + 40°C |
| from 10th day after laying | + 30°C |
| from 11th day after laying | + 20°C |

SUSTAINABILITY

PRONTOPP® TMC is based on synthetic calcium sulphate. It is a by-product of a process of the chemical industry and it is practically carbon neutral. The production of synthetic calcium sulphate does not require additional thermal energy and a release of mineral bond CO₂ will not occur.

PRONTOPP® TMC binds the total water into its crystal structure. No additional water is required. Loading with humidity (with a regular screed of about 90 - 130 litres additional water per m³ screed mortar), extended drying time (regularly about 28 to 56 days depending on conditions) and additional energy for a thermal heating process is not required. However this process is still inevitable to reduce thermally induced tensions.

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SETTING NEW LEVELS

The Screed Development Centre
Unit 1 Power Park, Commercial Road
Goldthorpe Industrial Estate
Rotherham, S63 9BL

Full installation guide can be found on our website:

WWW.TEKCEM.CO.UK
WWW.TEKFLOOR.CO.UK
Sales: 01709 261 007
Technical: 03300 553 714

HEALTH & SAFETY

This product is not classified under the Chemicals Hazard Information and Packaging for Supply Regulations. A Material Safety Data Sheet relating to this product can be obtained from TEKCEM LTD. Please dispose of packaging and waste responsibly.

COMMENTS

The raw materials we process and the products we produce are subject to strict factory inspections. Do not use additives from other manufacturers when using this product. It is stressed that our products and the procedure must be tested for suitability prior to application.

Whilst information provided in this datasheet is true and accurate to the best of our knowledge, it may contain information which is unsuitable under certain circumstances since materials, site conditions and method of application vary with each application. TEKCEM LTD cannot be held responsible for any loss or damage due to incorrect use or from the possibility of variations in working conditions and/or workmanship beyond our control. The user alone is responsible for any consequences deriving from the product.

WARNING

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STORAGE & SHELF LIFE

Six months in unopened bags and stored under good, cool and dry conditions.